



Environmental Cleanup Program

ISSUE 27 – February 2005

A QUARTERLY NEWSLETTER REPORTING ON CLEANUP AT BEALE AFB

Quick action at Site 8 to prevent groundwater contamination

The two treatment systems recently installed at Site 8 are designed to clean up contaminated vapors in soil. By doing so, they will also prevent contamination of groundwater. The graphic to the right illustrates how removal actions fit into the overall cleanup process.

Site 8 is the Former J-57 Engine Test Cell. Runoff from test pads, leaks from aboveground storage tanks, and a wastewater leachfield contaminated soil with fuel-related compounds and solvents. Groundwater beneath Site 8 is very deep, which provides the opportunity to tackle the contamination while it is still in the soil.

Air Force officials quickly changed the nature of the project from an investigation to a removal action once site conditions were understood. Vapors can be treated more quickly and at less cost than groundwater. Treating the Site 8 contamination before it reaches groundwater saves the Air Force years of expensive groundwater cleanup.

Continued on page 2

2005 will see plans, decisions, and designs

A large portion of Beale AFB's 2005 budget is aimed at completing the remaining steps necessary before installing cleanup systems for three of the base's ten high-priority sites—Site 17, Best Slough; Site 18, Bulk Fuel Storage Facility; and Site 32/1, Flightline/Westside Drainage Areas.

The three sites on this year's agenda have contaminants in soil, soil gas, and groundwater. The cleanup options can be complex, usually combining several remedies. Cleanup actions have already been taken to control or lessen the contamination at all of the sites. For example, soil vapor extraction systems are already in place at Site 32/1, because those systems helped prevent further contamination of groundwater.

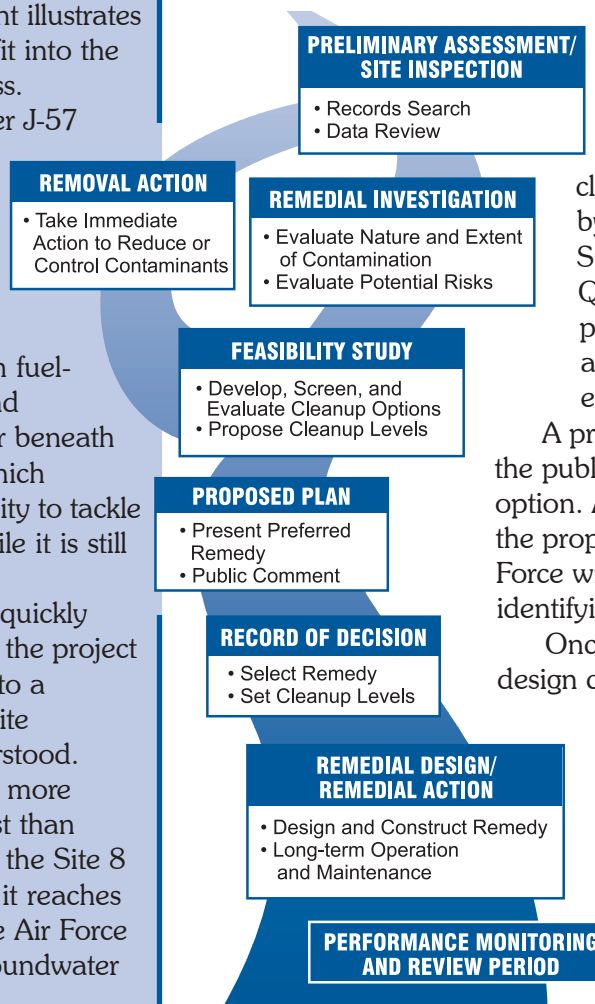
The feasibility studies, which compare cleanup options, are currently being reviewed by the California Department of Toxic Substances Control and Regional Water Quality Control Board. The next steps are the proposed plan, record of decision (ROD), and finally design of the selected remedy for each site.

A proposed plan presents the cleanup options to the public and identifies the Air Force's preferred option. After considering comments received during the proposed plan's 30-day comment period, the Air Force will select a remedy and publish a ROD identifying the remedy and the cleanup goals.

Once the remedy is decided, the remedial design can begin. In the design phase, engineering teams create blueprints and specifications detailing the components and placement of the treatment system.

In most cases, some design-related fieldwork is required. Groundwater beneath Site 18 has fuel-related contamination. The investigation phase of the cleanup process looked for the point at which contamination ended, but

Continued on page 2



Quick action at Site 8 to prevent groundwater contamination (cont.)

Continued from front page

Two systems have been installed at Site 8. A soil vapor extraction system will remove the solvent-related contaminants by withdrawing the vapors from the soil using a vacuum pump. The extracted air will be treated before being discharged to the atmosphere.

In areas where fuel is the predominant contaminant, a biovent system will introduce oxygen into the soil to enhance biodegradation of fuel-related contaminants.

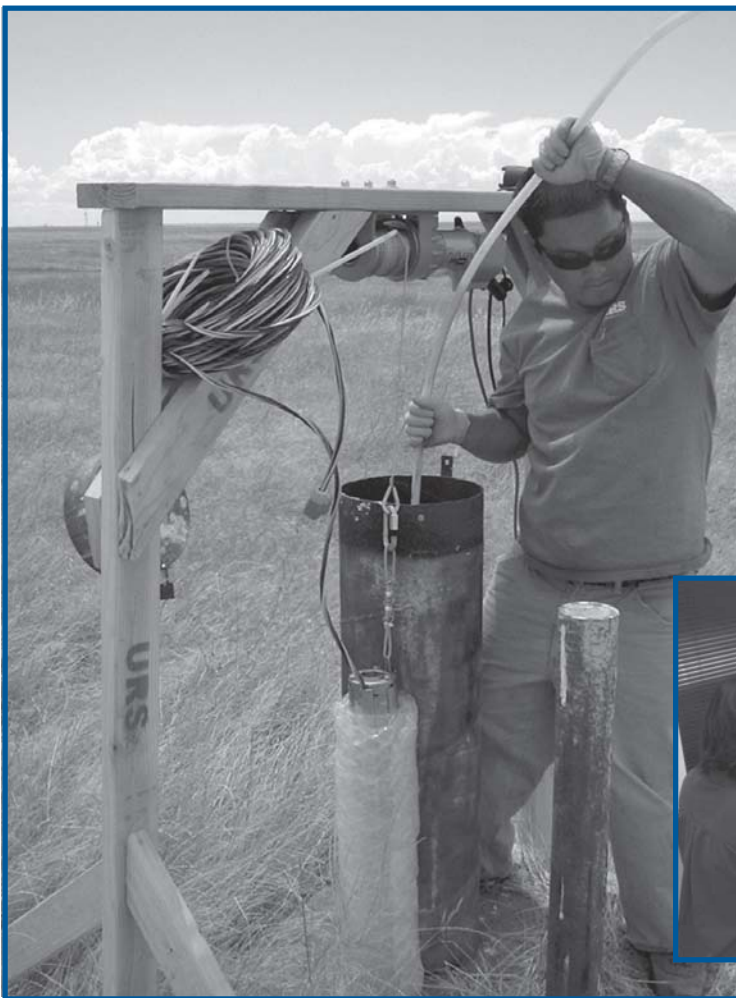
The systems were started in February and are expected to operate for approximately 4 years. ✕

Although the equipment for both systems is centrally located, they treat different areas beneath Site 8. Engineers will monitor site conditions closely to ensure the effects of the two systems are compatible.



2005 will see plans, decisions, and designs (cont.)

Continued from front page



design engineers need to know the locations of the highest concentrations.

The design process may include treatability studies as well. These are small-scale studies or systems that provide critical information for a successful design.

“Our goal is to have cleanup systems in place at all high-priority sites by 2007,” said Mike O’Brien, Environmental Flight Chief. Beale AFB already has cleanup systems in place at eight of the ten high-priority sites. ✕

A geologist with URS readies a groundwater monitoring well for an aquifer test. Aquifer tests may be conducted during the design phase to provide more information about the movement of groundwater.



The design stage of the cleanup process often accounts for less than 5% of the site’s project cost; however, it is a stage when a great many decisions are made.

Removal actions will reduce risks at Sites 3 and 38

This year Beale AFB will conduct removal actions at Sites 3 and 38. Removal actions are taken to quickly reduce the risk of exposure. The graphic on page 1 shows how removal actions fit into the overall cleanup process.

At Site 3, the Former Fire Protection Area, the Air Force will excavate about 1,500 cubic yards of soil (about 1.5 feet deep) with lead and dioxin contamination. The contaminants are the result of materials that were burned for training purposes. Water used to

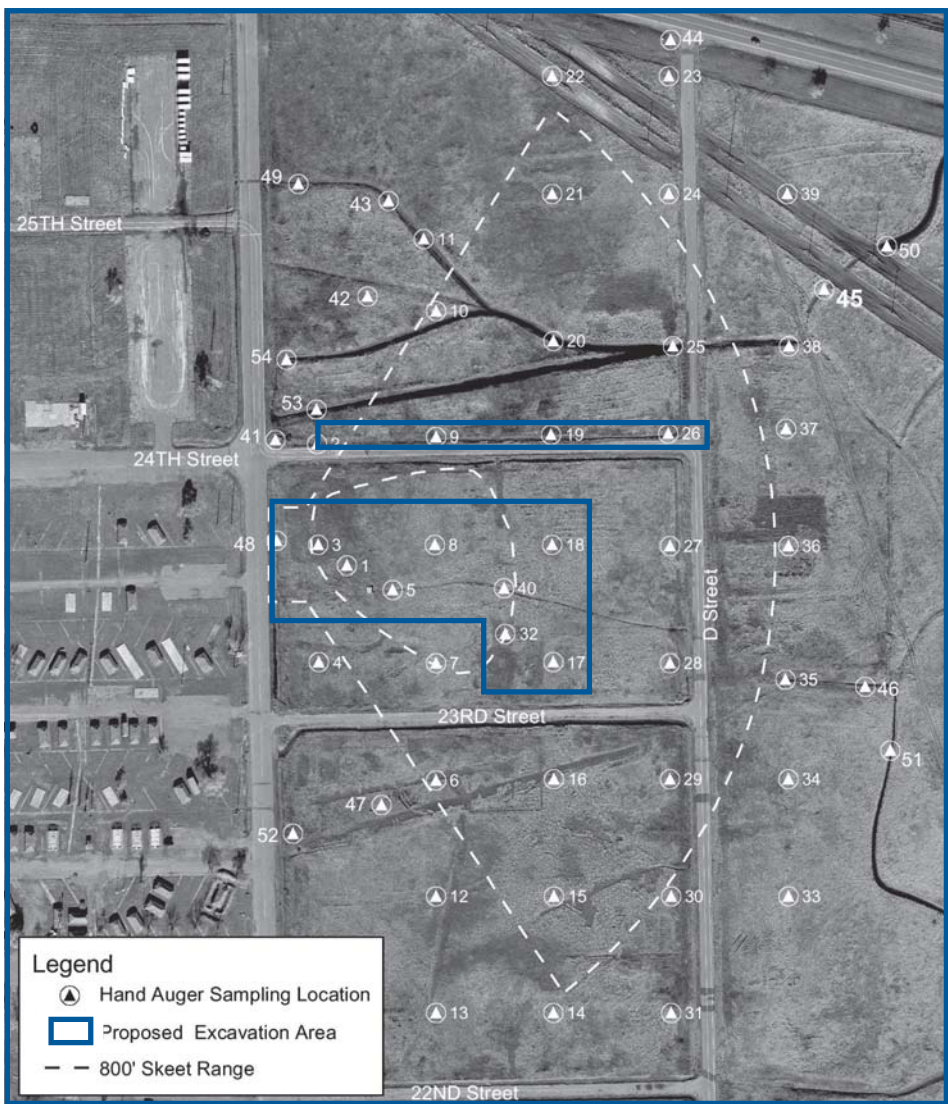
extinguish mock aircraft fires also carried some residue to nearby drainages.

At Site 38, the Former Skeet Range, some areas of soil have been contaminated by lead shot and clay pigeons. Approximately 4,500 cubic yards of soil will be excavated. Confirmation samples will verify contaminants have been removed, and a risk assessment will evaluate whether the site poses a threat to human health or the environment. If no threat is identified, the site will be

recommended for closure in a No Further Response Action Planned (NFRAP) Report. NFRAPs are submitted for regulatory agency and public review and comment.

In the case of Site 3, the removal action will reduce risk by removing soil, but the site will continue through the remainder of the traditional cleanup process to address groundwater contamination beneath the site.

Soil excavated from Sites 3 and 38 will be transported to a landfill licensed to accept hazardous waste. The sites will be backfilled, graded, and restored. The removal actions are expected to occur in late summer 2005. ✕



Over 50 samples were collected at the Former Skeet Range to identify the areas of soil at Site 3 that need to be removed.

During the site assessment, soil samples were collected to identify where contaminants were located. Once the removal action is complete, more samples will be taken to confirm that the site is clean.

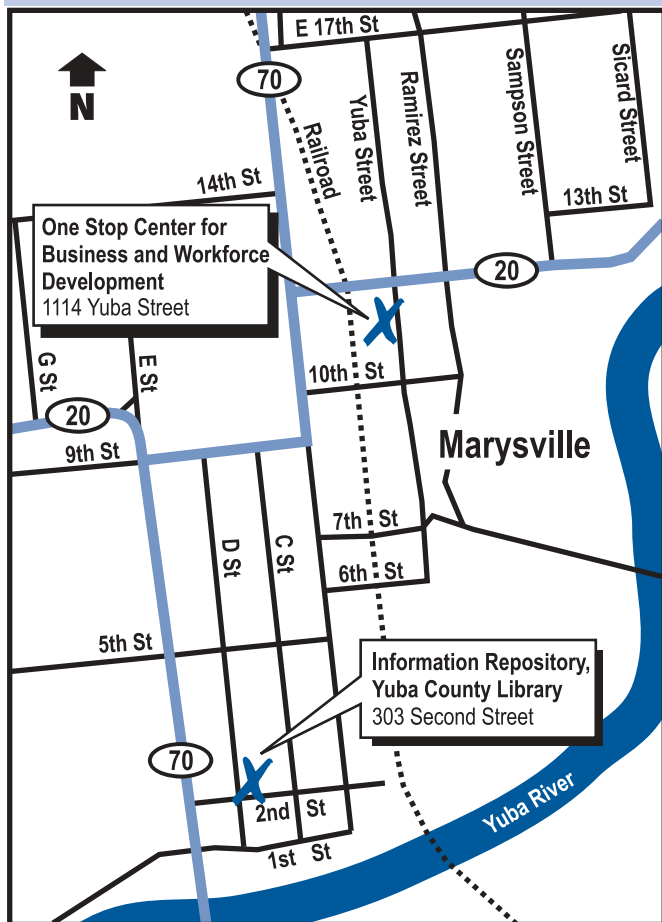


Upcoming Events

Restoration Advisory Board Meeting/Open to Public

Thursday, March 17, 2005, 6-8 p.m.

The meeting will be held at One Stop Center for Business and Workforce Development, 1114 Yuba Street, Marysville



Meet the RAB

Jomara Ortiz



Restoration Advisory Board (RAB) members are liaisons between the Air Force cleanup program and the community. Jomara Ortiz is an engineer and she lives on Beale AFB, so she is in a unique position to fulfill that responsibility.

As an engineer for Kwest Engineering in Yuba City, Ortiz works on a wide range of projects. Some are stormwater pollution prevention plans, in which Ortiz identifies ways to prevent stormwater from carrying contaminants to waterways.

Water issues are Ortiz's primary concern and her reason for joining the RAB. "Whether it is groundwater or drinking water, I think it is very important to know what is going on where you live."

Beale is Ortiz's first experience with life on a military base. Ortiz came to Beale AFB about two years ago. Her husband is currently deployed in Korea. Ortiz was born and raised in Puerto Rico, earning a Bachelor of Science in Civil Engineering from the University of Puerto Rico.

Ortiz's free time is usually devoted to her 5-year-old son, who looks forward to his father's return. Ortiz also teaches religious education at Saint Mary's Church at Beale AFB. ✂

The Restoration Advisory Board is a forum through which our local communities, the Air Force, and the regulatory agencies work together in an atmosphere that encourages discussion and exchange of information on the environmental cleanup of Beale Air Force Base. The public is encouraged to attend and participate in Restoration Advisory Board meetings.

Sites Discussed in This Newsletter

